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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/726,336

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David J. Zahniser

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EXAMINER

STOCK JR, GORDON J

ART UNIT

PAPER NUMBER

2877

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/726,336

**Applicant(s)**

ZAHNISER ET AL.

**Examiner**

GORDON J. STOCK JR

**Art Unit**

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-26, 28-32 and 42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16, 19, 20, 22-25 and 28 is/are allowed.
- 6) ☒ Claim(s) 29-32 is/are rejected.
- 7) ☒ Claim(s) 17, 18, 21, 26 and 42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The Amendment received on November 16, 2007 has been entered into the record.

#### *Claim Objections*

2. **Claims 17, 18, and 21** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. **Claim 17** does not further limit **claim 16** because **claim 17** discloses 'the first LED comprises a red LED' wherein **claim 16** already discloses this by stating 'an array of closely packed LEDs, including a first LED having a first narrow band wavelength (line 4)' and 'the array of LEDs including one or more red LEDs (line 11).' **Claim 18** does not further limit **claims 16-17** because **claim 18** discloses 'the second LED comprises a green LED' wherein **claim 16** already discloses this by stating 'an array of closely packed LEDs, including a first LED having a first narrow band wavelength and a second LED having a second narrow band wavelength different from the first narrow band wavelength (lines 4-6)' and 'the array of LEDs including one or more red LEDs and one or more green LEDs (line 11).' **Claim 21** does not further limit **claim 16** because **claim 21** discloses 'the light source comprises an array of LEDs, the array including at least one green LED and at least one red LED and **claim 16** already discloses ' the array of LEDs including one or more red LEDs and one or more green LEDs (line 11).
3. **Claim 26** is objected to for the following: 'the a first array of LEDs' should read -the first array of LEDs-. Correction is required.

***Claim Rejections - 35 USC § 103***

4 The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. **Claims 29-32** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Fujihara et al. (4,852,985)**—previously cited in view of **Wunderman et al. (6,122,042)**—previously cited further in view of **Erickson (5,440,388)**.

As for **claim 29**, Fujihara in an illuminating device for microscopes discloses the following: a light source comprising an array of closely spaced LEDs, including a first LED having a first narrow band wavelength and a second LED having a second narrow band wavelength different from the first narrow band wavelength that are located side by side (Fig. 1: 1, 2; Fig. 3b: 1, 2; col. 2, lines 50-55; col. 3, lines 49-56). Fujihara demonstrates the first and second LEDs attached to a substrate (Fig. 3a: 1, 2); wherein the lighting system illuminates the sample using light emitted from one or both of the first and second LEDs without the passing through a bandwidth filter (Fig. 1: 1-7; Fig. 3a and 3b; col. 3, lines 49-56). As for the first LED and second LED consisting of a first and second die, Fujihara does not explicitly state this but suggests this by demonstrating separate LED units on a substrate (Fig. 3a). Nevertheless, Wunderman in an illumination source teaches that LEDs are die attached to substrates (Fig. 6a: 116; col. 6, lines 30-35). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made that the first LED and second LED consisted of dies in order to produce a compact illumination device.

In addition, Fujihara does not explicitly state that the first and second LEDs fall within a 4 mm diameter, though he suggests this (col. 3, lines 42-48). And in view of Wunderman,

Wunderman discloses the LEDs are substantially cubic (Fig. 2E; 46) are closely spaced to each other (Fig. 2b; 46) and that each LED die has a volume of .03 cubic mm (col. 6, line 33). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made that two LEDs fell within a 4mm diameter for each die is approximately .3 mm wide (Fig. 2b: 2 LEDs are approximately .6 mm wide). And lastly, It would have been an obvious matter of design choice to have the LED module have two LEDs fall within a 4 mm diameter since such a modification would have involved a mere change in the size of a component, the LED module. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

As for a plurality of lenses including a first lens positioned over the first die and a second lens positioned over the second die, Fugihara is silent. However, Erickson in an imaging system teaches the use of microlenses above LEDs (col. 17, lines 43-53). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to have a plurality of lenses including a first lens positioned over the first die and a second lens positioned over the second die as by a microlens array in order to focus the LEDs light onto the sample.

As for the sample being a biological sample, Fugihara does not explicitly state this. However, Examiner takes official notice that microscopes are routinely used to examine biological samples such as blood and tissue. Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to have the sample be biological such as blood or tissue in order to examine the sample's cellular content.

As for **claims 30-32**, Fugihara in view of Wunderman and Erickson discloses everything as above (see **claim 29**). In addition, Fugihara discloses the following: the LED array comprises

multiple green LEDs, multiple red LEDs, and at least one red LED and at least one green LED (Fig. 3b: 1, 2)

***Allowable Subject Matter***

6. **Claims 16, 19, 20, 22-25, and 28** are allowed.

**Claims 17, 18, 21, and 26** would be allowable if the objections to the claims are overcome.

**Claim 42** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to **claim 16**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in an optical instrument lighting system the first and second lenses are attached to the potting material, in combination with the rest of the limitations of **claims 16-26 and 28**.

As to **claim 42**, the prior art of record, taken alone or in combination, fails to disclose or render obvious in an optical instrument lighting system the first and second lenses are attached to the potting material, in combination with the rest of the limitations of **claim 42**.

***Response to Arguments***

7. Applicant's arguments (Remarks filed on November 16, 2007) with respect to **claims 29-32** have been considered but are moot in view of the new ground(s) of rejection

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent 6,445,448 to Melman et al. (specifically, Figs. 11-13)

U.S. Patent 5,543,830 to Lea (specifically, Figs. 6-7 with col. 6, lines 15-25)

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Several facts have been relied upon from the personal knowledge of the examiner about which the examiner took Official Notice. Applicant must seasonably challenge well known statements and statements based on personal knowledge when they are made by the Board of Patent Appeals and Interferences. In re Selmi, 156 F.2d 96, 70 USPQ 197 (CCPA 1946); In re Fischer, 125 F.2d 725, 52 USPQ 473 (CCPA 1942). See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice). If applicant does not seasonably traverse the well-known statement during examination, then the object of the well known statement is taken to be admitted prior art. In re Chevenard, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged

with rebutting the well-known statement in the next reply after the Office action in which the well known statement was made.

***Fax/Telephone Numbers***

If the applicant wishes to send a fax dealing with either a proposed amendment or a discussion with a phone interview, then the fax should:

1) Contain either a statement "DRAFT" or "PROPOSED AMENDMENT" on the fax cover sheet; and

2) Should be unsigned by the attorney or agent.

This will ensure that it will not be entered into the case and will be forwarded to the examiner as quickly as possible.

*Papers related to the application may be submitted to Group 2800 by Fax transmission. Papers should be faxed to Group 2800 via the PTO Fax machine located in Crystal Plaza 4. The form of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CP4 Fax Machine number is: (571) 273-8300*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gordon J. Stock whose telephone number is (571) 272-2431.

The examiner can normally be reached on Monday-Friday, 10:00 a.m. - 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr., can be reached at 571-272-2800 ext 77.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR



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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private Pair system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/G. J. S./

GJS

Examiner, Art Unit 2877

/L. G. Lauchman/

Primary Examiner, Art Unit 2877